

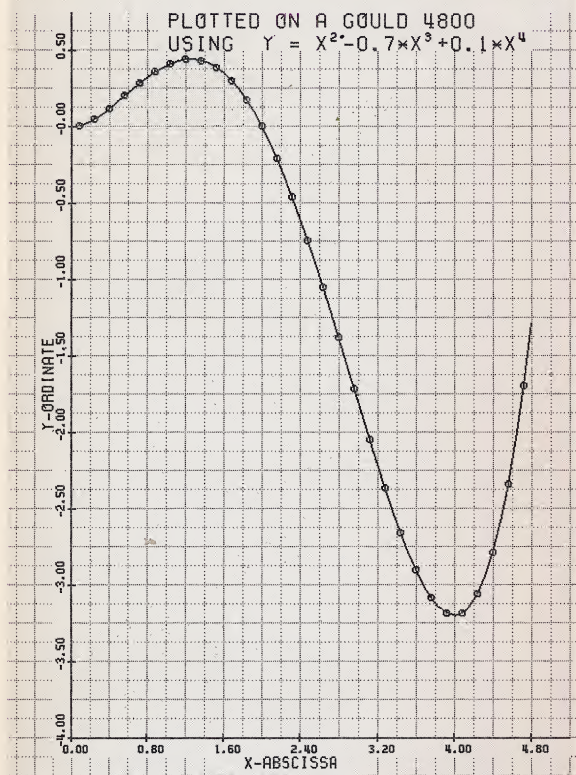
Gould electrostatic printers/plotters.
Whatever you need, whatever your computer,
there's one that fits your application.



 **GOULD**

Nov 75

SERIES Gould 4800 Systems





The Gould 4800 Systems are among the fastest electrostatic printer/plotters on the market today. 4800 Systems are ideally suited for label printing, program listings, computer typeset proofing, real time data analysis, management reports, and other printing and plotting applications where quick turnaround and high throughput rates are important.

Years of use in government, education, and industry attest to the rugged construction and ease of maintainability of Gould 4800 Systems.

FEATURES

- Very high speed plotting, up to 7.5 ips paper speed
- Very high speed printing, up to 3600 lines per minute
- 8½" and 11" wide roll paper, standard and translucent grades
- 100 and 132 characters per line
- 64 and 96 ASCII character sets, 5 x 7 dot matrix
- 600 and 800 stylii across paper width
- Resolution of 12.5 mils
- Proprietary vacuum toner clean off system enables output to dry immediately and allows 15° roll, pitch and yaw without toner spillage
- Programmable paper cutter option
- Foreign power option
- Pre-packaged spare parts kit option

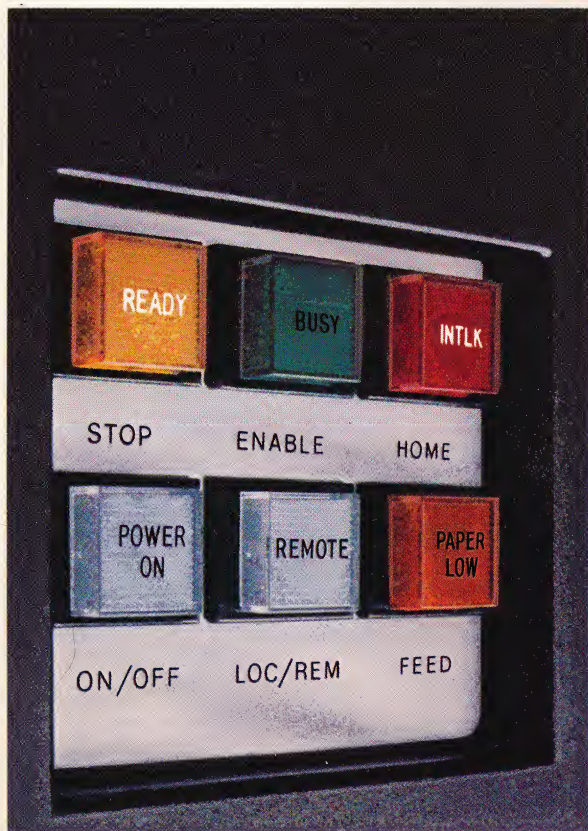
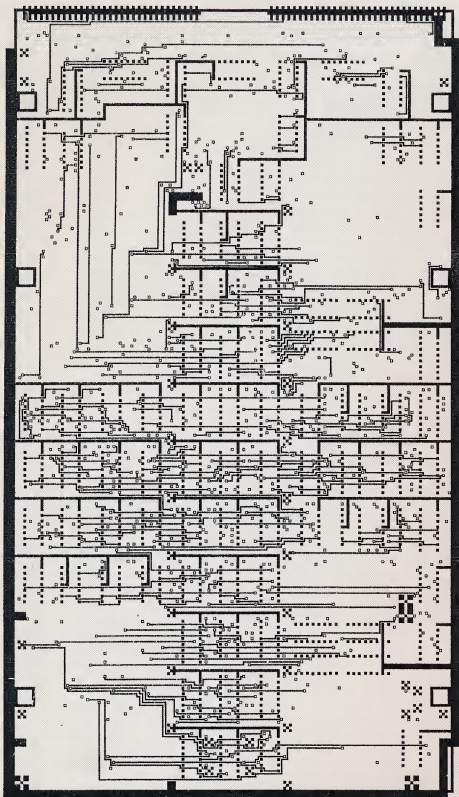
PLOTTERS

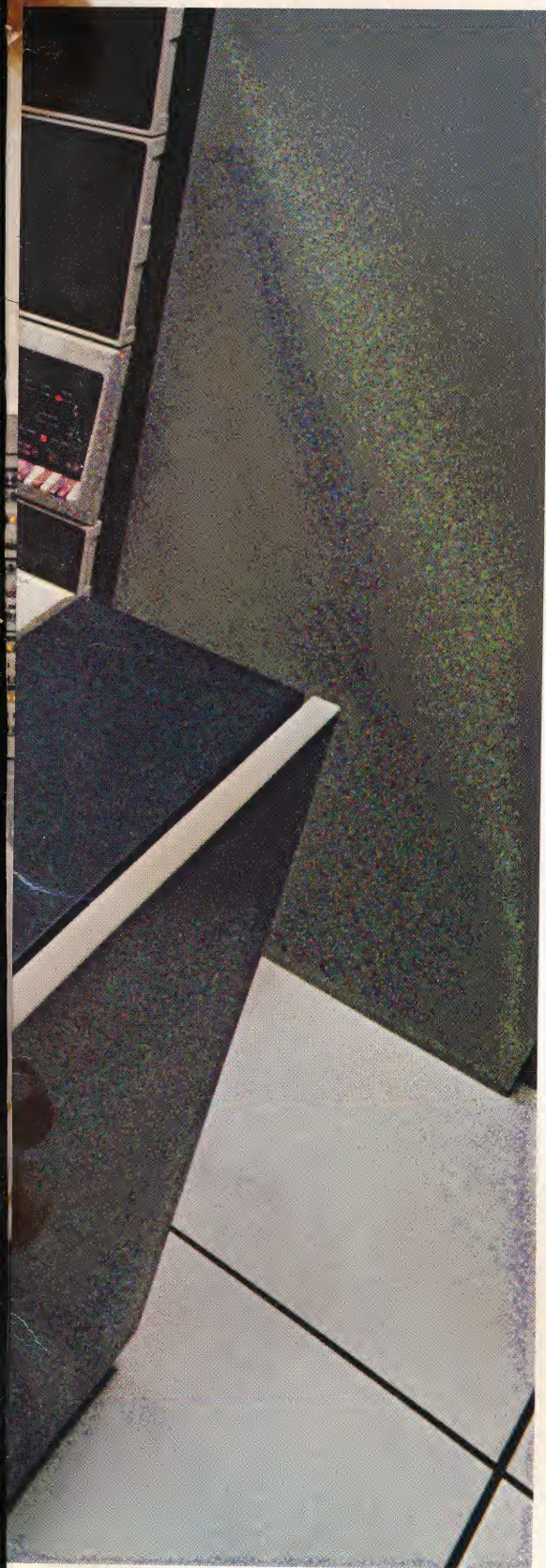
- | | |
|-------------|--|
| Model 4821B | Plots with 600 stylii on 8½" wide paper at 7.5 ips |
| Model 4822B | Plots with 800 stylii on 11" wide paper at 7.5 ips |

PRINTER/PLOTTERS

- | | |
|-----------------|---|
| Model 4821 | Plots at 7.5 ips on 8½" wide paper and prints 100 characters per line at 3000 lpm using 96 ASCII upper and lower case character set |
| Model 4821-101 | Prints at 3600 lpm using 64 ASCII upper case only character set and plots at 7.5 ips on 8½" wide paper |
| Model 4821-101A | Same as Model 4821-101 except uses 64 EBCDIC upper case only character set |
| Model 4822 | Plots at 7.5 ips on 11" wide paper and prints 132 characters per line at 3000 lpm using 96 ASCII character set |
| Model 4822-101 | Prints at 3600 lpm using 64 ASCII character set and plots at 7.5 ips on 11" wide paper |
| Model 4821-101A | Same as Model 4822-101 except uses 64 EBCDIC character set |

SERIES Gould 5000 Systems





Designed expressly for minicomputers, the Gould 5000 systems offer superior price/performance with models that plot up to 400 times faster than pen plotters and print almost twice as fast as line printers for large computers.

The versatility of the Gould 5000 Systems is shown by the wide range of applications that include: management reports, program listing, photo typeset proofing, process control, medical research, CRT display hardcopy, architectural and engineering drawings, label printing, seismic output, business graphics, and more.

Few moving parts and silicon solid state electronics make the entire 5000 series extremely reliable, easily maintainable and very quiet. Built with traditional Gould quality, all units are backed by Gould's own factory trained, nationwide service force.

FEATURES

- High speed plotting, up to 3.25 ips paper speed
- High speed printing, up to 1600 lines per minute
- 11 inch wide fan-fold or roll paper, standard, data plus and translucent grades
- 132 characters per line
- 64 or 128 ASCII character sets, 7 x 9 dot matrix
- 1056 stylii across paper width
- Resolution of 10 mils
- Proprietary vacuum toner clean-off system enables output to dry immediately and allows 15° roll, pitch and yaw without toner spillage
- Dimensions: 38½" H x 28½" W x 18" D
- Accuracy of 0.2% over 10 inches, horizontal and vertical
- Wide range of certified operating environments
- Programmable paper cutter option
- Foreign power option
- Custom designed print font option
- Pre-packaged spare parts kits option

PRINTERS

Model 5010A	Prints at 600 lpm using 64 ASCII upper case only character set
Model 5010A-100	Prints at 500 lpm using 128 ASCII upper and lower case character set
Model 5000A	Prints at 1600 lpm using 64 ASCII upper case only character set
Model 5000A-101	Prints at 1300 lpm using 128 ASCII upper and lower case character set

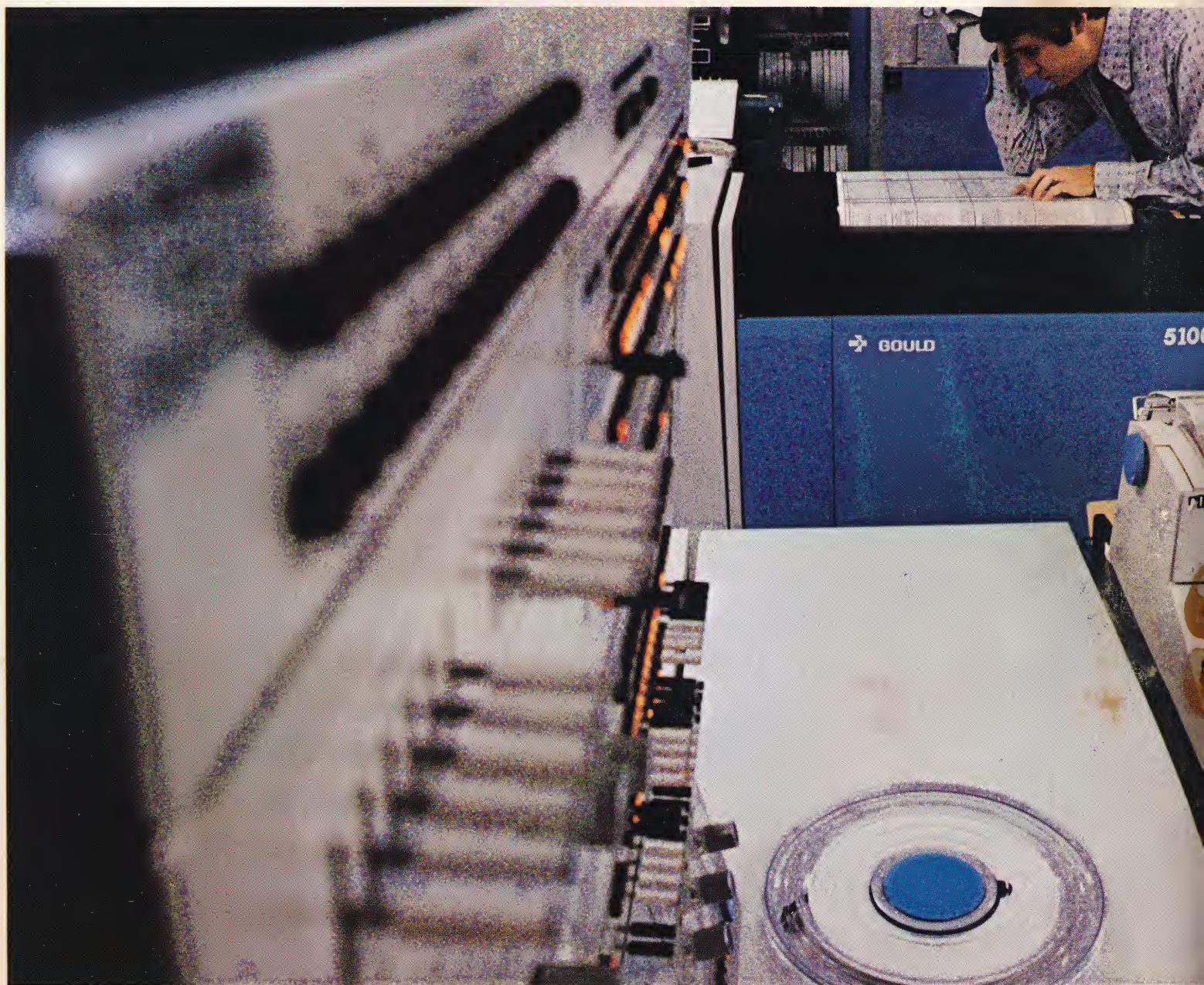
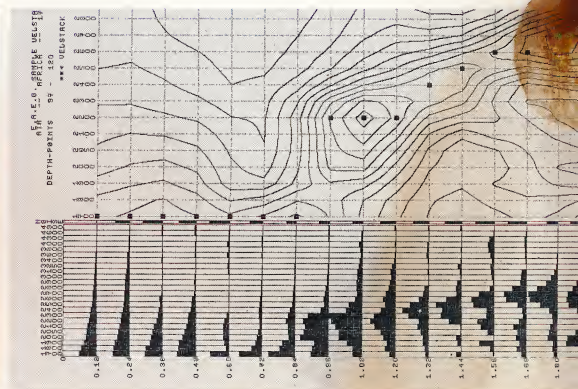
PLOTTERS

Model 5010B	Plots at a paper speed of 1.2 inches per second
Model 5000B	Plots at a paper speed of 3.25 inches per second

PRINTER/PLOTTERS

Model 5010	Prints at 600 lpm using 64 ASCII character set and plots at 1.2 ips
Model 5010-101	Prints at 500 lpm using 128 ASCII character set and plots at 1.2 ips
Model 5000	Prints at 1600 lpm using 64 ASCII character set and plots at 3.25 ips
Model 5000-101	Prints at 1300 lpm using 128 ASCII character set and plots at 3.25 ips

SERIES Gould 5100 Systems





The Gould 5100 Systems offer both an output speed 400 times faster than pen plotters and a paper output that's 22 inches wide. And that's a combination no other electrostatic printer/plotter in the business can provide.

Able to plot D size engineering drawings in less than 11 seconds, Gould 5100 Systems were designed specifically for high speed computer graphics in scientific and engineering areas such as geophysical exploration, weather mapping, medical research, printed circuit layouts, architectural drawings, and computer-aided-design.

FEATURES

- High speed plotting, up to 3.25 ips paper speed
- High speed printing, up to 1200 lines per minute
- 22 inch wide roll paper, standard, data plus and translucent grades
- 264 characters per line
- 128 ASCII character set, 7 x 9 dot matrix
- 2112 stylus across paper width
- Resolution of 10 mils
- Accuracy of 0.2% over 10 inches, horizontal and vertical
- Proprietary vacuum toner clean off system enables output to dry immediately and allows 15° roll, pitch and yaw without toner spillage
- Dimensions: 36¾" H x 38½" W x 19½" D
- Paper takeup reel and slitter option
- Foreign power option
- Custom designed print font option
- Pre-packaged spare parts kits option
- Wide range certified operating environment

PLOTTERS

Model 5100B

Plots at a paper speed of 3.25 inches per second. Available plot area of 21.12 inches wide by 400 feet long

Model 5105B

Plots at a paper speed of 3.25 inches per second using a 2-row staggered stylus image head. Available plot area of 21.12 inches wide by 400 feet long

PRINTER/PLOTTERS

Model 5100

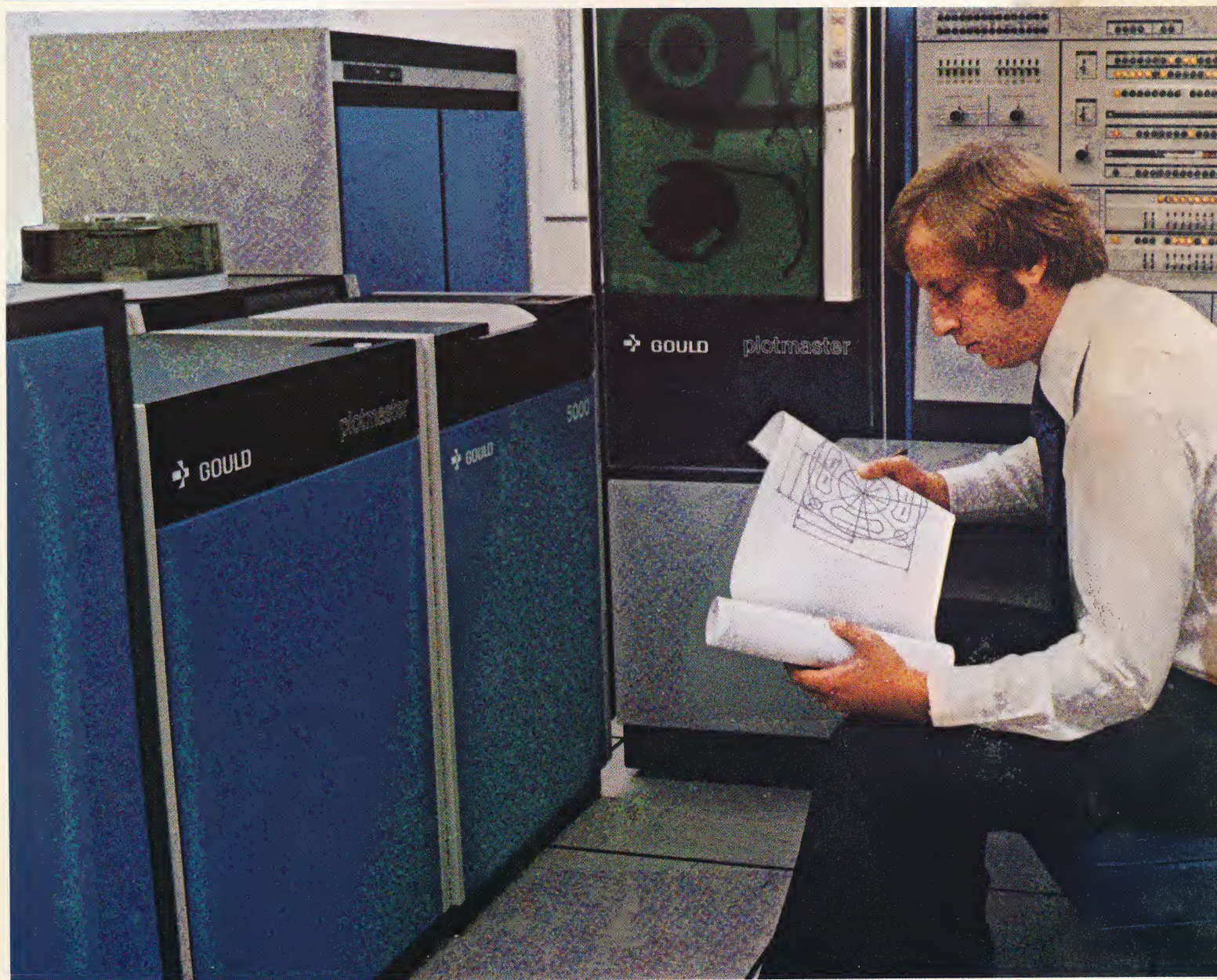
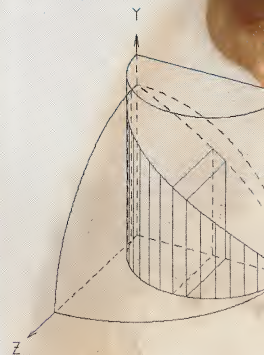
Prints at 1200 lpm with 128 ASCII character set and plots at 3.25 ips

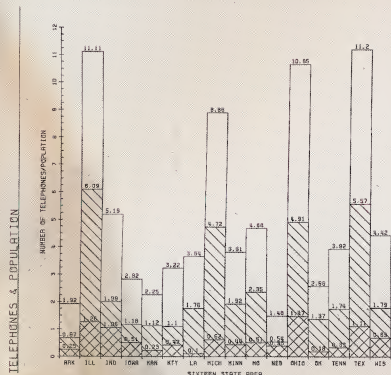
Model 5105

Prints at 1200 lpm and plots at 3.25 ips using a 2-row staggered stylus image head

Gould Plotmaster^{T.M.} Systems

plotmaster





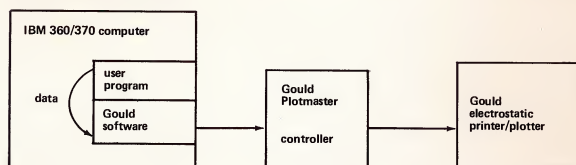
Plotmaster Systems are powerful, versatile hardware and software systems that provide a fast, efficient means of obtaining engineering, scientific, and business graphics from any IBM System/360/370 computer operating under DOS or OS, real or virtual. In addition to the basic PLOT graphics package, specialized software is available for business (DISPLAY)TM, scientific (DADS and PAL), and engineering (FAST-DRAW)TM applications. Full printing capability is standard on all Plotmaster Systems.

Plotmaster Systems can be purchased or leased and are supported nationwide by Gould's own highly trained service force.

All Gould electrostatic printer/plotters are available on Plotmaster Systems.

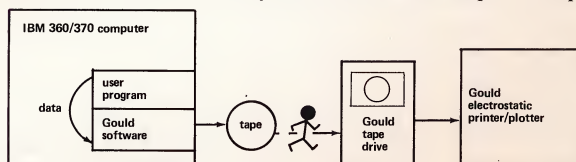
ON-LINE OPERATION

The controller operates on either the IBM selector channel, the IBM Byte Multiplexor channel, or the IBM Block Multiplexor channel. Operation may be set for either byte multiplex or burst mode on the Multiplexor channel. The controller occupies one control unit position on the 360/370 channel and follows all OEM interface conventions established by IBM.



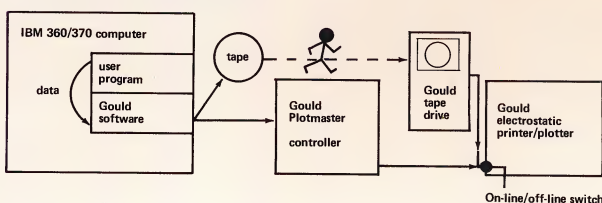
OFF-LINE OPERATION

This configuration includes a nine-track, 800 or 1600 cpi read only tape drive, for data input. Additional software is available for other major computer systems including Burroughs, Univac, and Control Data, thereby increasing the utilization of the system for the multiple computer user.



ON-LINE AND OFF-LINE OPERATION

The greatest system flexibility is provided the user in this mode of operation. Shifting from on-line to off-line operation is easily accomplished.



Interfaces

All interfaces are interrupt driven and use Direct Memory Access channel in parallel mode.

The interface consists of one or more printed circuit boards located in the computer; a 15 foot or optional 50 foot cable that runs between the computer and the electrostatic unit; and a printed circuit board in the electrostatic unit.

Each on-line interface controls one electrostatic unit per computer. Any exceptions to this configuration are noted in the interface description.

MODEL	DESCRIPTION
300	PDP-11 Interface — Models 05, 10, 15, 20, 35, 40, 45, 50
301	HP-2100 Interface — Models 2100, 2114, 2115, 2116, 21 MX series
302	PDP-8 Interface — Models 8e, 8m, 8f
303	Nova Interface — Models Nova, Supernova, 800, 820, 840, 1200, 1210, 1220, 1230, Nova/2, Eclipse
304	Honeywell 316/516 Interface
305	Raytheon 700 Interface — Models 703, 704, 706, RDS-500
307	SEL 810A/810B
309	IBM 360/370 — Models 360/30 and up. Direct on-line controller housed in separate free standing enclosure. Customer must supply cables and connectors from computer to controller. Standard 20 foot cable supplied between controller and electrostatic unit. Optional cable lengths of 100, 500 and 1000 feet. Manual test unit packaged in attache case available as an option to simulate IBM I/O channel and/or printer control logic for off-line test of 360/370 Interface. See Plotmaster Systems.
310	I/O Interface . Required option when customer is designing his own interface and maximum cable length from electrostatic unit is 50 feet. Customer must supply cable.
311	Cable Driver/Receiver Interface . Required option when customer is designing his own interface and cable length from printer is 51 to 1000 feet. Customer must supply cable.
312	Interface Cable Extension Package . Required option for remote operation 51 to 1000 feet from mini-computer when a Gould interface is ordered. Up to 3 combinations of the following cable lengths may be ordered: 20, 50, 100, 200, 500 feet. Maximum cable length is 1000 feet. Up to 4 electrostatic units can be supported by one cable extension package.
313	PDP-9 Interface
314	PDP-15 Interface
315	Interdata 70 Interface — Models 70, 74, 80, 84, 7/16, 7/32
316	Univac 1100 Interface — Models 1106, 1107, 1108, 1110. Direct on-line controller is housed in a separate free-standing enclosure. Customer must supply cable and connectors from computer to controller. Standard cable length from controller to printer/plotter is 50 feet, but up to 1000 feet is available as an option.
317	CDC 3000/6000 Interface — Models 31/3150, 3170, 3200, 3300, 3400, 3500, 3600, 3800, 6200, 6400, 6500, 6600, 6700, 7600, Cyber-72, Cyber-73, Cyber-74, Cyber-76. Direct on-line controller is housed in separate free standing enclosure. Customer must supply the cables and connectors from the computer to the controller. Customer must provide a Data Channel Converter (CDC 6681) for use on CDC 6000 series, CDC 7000 series, and CDC Cyber series computers. Controller will accommodate up to 4 printer/plotters and 2 CDC Channels (optional). The standard unit emulates a CDC 3000 tape control unit but any CDC 3000 peripheral can be emulated (optional).
318	Composite Video Interface for CRT Hardcopy. Standard units accept RS-170 compatible input from up to 4 CRT displays and provide output to one electrostatic unit. As an option the interface can be multiplexed to provide simultaneous support from a minicomputer.
319	RS-232C .

Software Packages

Specialized alphanumeric and graphic software packages are available for a wide range of printing and plotting applications — including scientific, engineering, business and general use. A brief description of each of the packages can be found below.

BASIC SOFTWARE — The Gould PLOT Package is upward compatible with the widely accepted Calcomp graphics package. The changeover is transparent to the user, thus eliminating the necessity for retraining. Gould PLOT can be used for generating any geometric construction, complete with desired annotation. The basic subroutines may be used as fundamental building blocks to form more complex routines for a specific application. Gould PLOT has several unique features due to the speed and flexibility of Gould electrostatic printer/plotters and Gould's experience in the design of graphic programs. Among them are: background grids; variable line weights; automatic stripping to accommodate a maximum plot size of up to 60" x 400"; text annotation at any location at any angle, for a set of 128 characters of any size; and line erasure capability.

PRINTING — The line printer driver allows a Gould printer or printer/plotter to simulate the function of a standard line printer. Running as a standard device driver under the host computer's operating system it may be used by any system utility or user program.

ENGINEERING SOFTWARE/FAST-DRAW™ Consists of 80 Fortran-callable routines readily usable by anyone familiar with Fortran coding techniques, such as a design engineer or a qualified trained draftsman. A major advantage of this package is that the user needs only to specify key parameters defining a geometric figure and the program will automatically perform the geometric and trigonometric calculations to produce the desired construct. It is well suited for a wide variety of applications from simple illustrations to highly sophisticated engineering drawings for Computer-Aided Design and two-dimensional or perspective projections of three-dimensional constructs. Other features include: multiple line text strings, grid patterns, dimensioning arrows, linear movements of incremental coordinate dash-lines, coordinate listings, multiple transformations, and error routines.

ENGINEERING SOFTWARE/PAL (Precision Artwork Language) — An easy to learn language that allows the draftsman to generate a hardcopy drawing with one short simple program composed of English-like commands. PAL enables the designer working from a sketch to describe his design in drafting machine language with a minimum of manual coding. The software package facilitates a virtual one-step transformation of a design idea into comprehensive commands for generating graphic output of comparator charts, printed circuit artwork, schematic diagrams, optical masks, and many others. After quick proofing on the Gould plotter, PAL can generate the EIA commands to drive an automatic drafting machine.

BUSINESS GRAPHICS/DISPLAY™ A language that provides non-programmers with the capability of easily generating line, bar and pie charts. Since DISPLAY is not a subroutine package, Fortran is not a prerequisite. However, Fortran BAL, or COBOL subroutines are callable within the framework of DISPLAY, if desired. Simple charts can be generated with a few minutes of training, and more sophisticated graphics can be obtained as the user gains expertise with the language. Because DISPLAY has the ability to recover from input coding errors and produce an acceptable chart, reprogramming is minimized. The language itself is composed of simple English-like commands, thereby eliminating the need for special coding forms and key punching instructions.

SCIENTIFIC SOFTWARE/DADS (Data Acquisition Display System) — A software subroutine for the displaying of time sequential data with minimal chart annotation. This package enables the printer/plotter to simulate a high-speed strip chart recorder of up to 20 channels. Features of the DADS package include: point plotting, point-point interpolation, periodic channel identification with alphanumeric characters (3 x 5 dot matrix), axis generation with tick-mark position, four-digit X-axis calibrations, and ability to bypass missing data points.



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THANK YOU
FOR YOUR INTEREST
IN PLOTMASTER SYSTEMS

The GOULD PLOTMASTER SYSTEM breaks the bottleneck in computer-generated graphics by interfacing with IBM System 360/370 computers to plot graphs, charts, test data, and engineering drawings up to 400 times faster than conventional pen plotters.

PLOTMASTER SYSTEMS include both hardware and software and are available in on-line configurations starting at \$22,415, off-line configurations starting at \$25,050, and combined configurations starting at \$33,935. PLOTMASTER SYSTEMS can be leased directly from Gould and are backed by Gould's own nationwide service force of highly trained customer engineers.

In addition to the basic Gould PLOT software that is upward compatible with the widely accepted Calcomp graphics package, specialized business, scientific, and engineering software packages are available as options.

For an in-depth review of your specific application requirements, please contact the Gould sales office nearest you, as shown on the attached Sales Organization Sheet.

Very truly yours,

A handwritten signature in black ink, reading "Peter A. Highberg". The signature is written in a cursive style with a large, stylized "P" and "H".

Peter A. Highberg
Manager, Printer Products

Enclosures
PAH/fk

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